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Harrold's
Price list of Pansy & Viola seeds
1945

Modern Pansies

THEIR HISTORY, CULTURE AND HABITS

The Pansy is a very popular perennial that is usually grown as an annual. There is a quaint beauty in its makeup and it is a favorite with almost every gardener. No other plant will compare with it in the colorful variety of flowers produced. If given good care and conditions to its liking, few plants will equal it in the satisfactory display given.

Pansies originated from a plant commonly referred to by early writers as Heartsease and the name Pansy by which it is now known is a corruption of the french "pensée" meaning thought. It is mentioned by Parkinson as early as 1629 as a flower garden subject. The Pansy is so distinct from the wild species that its specific identity has not been determined. It is generally considered to be a descendent of Viola Tricolor, a small perennial Violet native of the cooler parts of Europe.

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The first known effort at the improvement of the Pansy occurred about 1812. Both Lord Gambier and the daughter of Lord Tankerville are credited with much early culture of them. Gambier's gardener, Thompson, is believed to have been the first to do selective breeding. He developed a strain with face like markings which soon was referred to as the Show Pansy (this is still designated in modern strains as the Exhibition type) which by 1841 was the rage among fanciers. Among these early strains the perfection of color and marking outranked size which was small.

The giant flowered strains came about as a result of the English stock being taken up by French and Belgium growers. Their standards differed and it was not long before entirely different forms of Pansies began to appear. Size rather than form and garish colors rather than preciseness of marking was the order of the day. These groups soon became known as Fancy varieties. Our modern varieties and strains are usually the result of selection and breeding of both types. Although the advanced grower still follows the original typing of the different sorts more or less. The real standard of quality in Pansies as we know them today began to emerge about 1860 and improvement has been more orderly since that time. From that time until just after the turn of the century there was not much advancement made. Soon after 1900, however, some 5 or 6 men took up the Pansy in a serious and specialized manner and the result of their work was the foundation of the present day strains.

For the American Gardener this small group improved the Pansy and developed varieties much better adapted to the American climate. They increased vitality, developed longer stems supporting flowers of enormous size well above the foliage and gave us a more symmetrical upright growing plant of more sturdy habit. Under favorable conditions these stems are long enough that the Pansy may be used as a cut flower. One of our greenhouse forcing types now available will produce stems 14 inches or more in length in the greenhouse and the plants are 4 feet or more in height. This type is too tender for outdoor culture in climates where the temperature drops below 25 degrees. Another cut flower type which can be grown out of doors is just as hardy as other Pansies and will produce 12 inch stems on plants a foot high with good culture. This is the one we supply for home gardeners. It is a strain we originated many years ago and it was the first variety bred for the express purpose of producing cut flowers.

Generally the home gardener prefers the mixed markings and large flowers in the widest possible color range. These are available in a number of types and generally it may be assumed that the more costly strains will be of the best quality. From the standpoint of the breeder it is essential that the price placed on the seeds shall reflect the cost of production and cover the development work that he has devoted to that strain. This makes the reputation of the breeder of prime importance to you. It is upon the breeder's reputation that you must evaluate the product. Another factor in pricing is that the strains producing the larger flowers yield the smallest quantity of seed.

It Might be interesting to our friends and customers to know a bit of the background of HARROLD'S. The original firm was founded in 1902 by C. W. Harrold who at 74 is still our grower and breeding

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specialist. Our work with Pansies began during that first year. Since 1925 there have been more new strains introduced by our gardens than any single breeder has introduced in an equal time. Harrold's was the first to introduce a variety bred for pot culture and is today the only commercial gardens offering this type. Harrold's was first in the introduction of a variety bred for cut flower growing. Since the introduction of this variety a tender, tall growing strain was introduced by another breeder but we have since improved this strain both in habit and color. In 1929 we introduced our Harrold's Pedigreed Giant Art Shades Orchid Selection which produced flowers of odd form in orchid and pastel shades. By 1939 we had discontinued this type because of its fragile flower. It was subject to sunburn and spotting and while a beautiful thing in protected spots it did not prove to be satisfactory under the care the average gardener would give it. This type has since been taken up and reintroduced during the past two years by another grower very little changed from our original introduction. Our current line of varieties has been bred to meet the requirements of the critical professional florist and nursery trade and we supply the same seeds to our home garden patrons.

WHERE MAY PANSIES BE GROWN

Pansies are most adaptable so long as their few basic requirements are understood. The modern strains, through years of open field culture by the seed grower have become more tolerant of sun than older varieties and it is a mistake to plant Pansies in full shade or on the north side of a building. Their full color will not develop and plants will become leggy and ill shaped. The ideal location is where they are protected during the very hottest part of the day but get all the morning sun possible. Second best is morning and evening sun with noonday protection or late evening sun from 3:00 or 4:00 o'clock on.

As for soil, Pansies are heavy feeders and while they will grow in all types of soil they do not do their best unless the soil is good. In the flowering beds the soil should be of a type that is well drained but holds moisture well. They dislike wetness but must have a moist cool soil for best results. For that reason the liberal use of leaf mould or peat moss is good although the use of well rotted cow manure is still better. Any of these may be spread on the bed 2 or 3 inches deep and well spaded in to a depth of 8 inches or more.

Pansies are grown as a winter blooming plant in the southern states and California, while in localities where temperatures drop lower than 25 degrees and where little winter sun prevails they should be handled as a spring and early summer flower. Farther north where summers are cool they will be satisfactory later into the summer.

WHEN TO PLANT

In the north, where the summers are cool, planting may be done during July. Where the temperature range usually is above 90 degrees August plantings will give better germination and as with most of the perennials, Pansies do not grow rapidly until the cooler weather of late summer comes so that except for special conditions planting too early is of no advantage. Most commercial growers in the north begin planting the last week in July to the Tenth of August and make successive plantings until the end of September. Seed germination is much better at this time than earlier and the possibility of failure is much reduced. This period of planting will apply to the Arnold Arboretum's zones of hardiness up to zone 4. Zone 4 and 5 would be about ten days later and zones 6 and 7 from 20 days to a month later. Plantings in zones 4 and 5 may be made as late as October Tenth and in zones 6 and 7 as late as January Tenth. Dates specified are for outdoor planting. In zone 1, 2 and 3 plantings may be made indoors from January First to February Twentieth and plants will begin blooming before Memorial Day. Really there is a wide range of planting dates although the August dates will generally prove best for this will time the plants so that transplanting may be undertaken and the plants become well established before winter. It is usually on these August plantings that the finest and largest flowers are produced.

NOTE: Zones mentioned are the hardiness zones used by the nurseryman to designate areas of hardiness for shrubs and trees. You will find complete information covering this system in The Garden Dictionary.

PLANTING

Probably the most satisfactory method of planting Pansies where

they are grown in relatively small quantities is in flats. Select a shaded location away from drying winds. In locations where temperatures run above 85 or 90 degrees it is a good idea during the time of actual germination to place the flat near a window in a basement where it is cool. If this is done they **MUST** be moved out into a shaded but fully lighted position as soon as the seedling leaves start to open. Watch growth carefully and as the seedlings develop, gradually shift into morning sunlight until plants have come into good growth. As the weather cools more sun may be given until the plants are acclimated to full all day sun if so desired. Shading too long or too much will cause the plants to draw out and become leggy.

In preparing the soil for planting take a good garden loam and mix into it about a quarter well rotted cow manure or peat moss. If not of a soft texture the addition of one-fifth sharp sand will be beneficial. Well composted material mixed 50-50 with loam also makes a good planting soil. The addition of a good handfull of steamed bonemeal to each flat will be helpful. Fill flat, which should be about 13 x 20 x 3½ inches or near that size, to within half an inch of the top and level by tamping lightly with a brick or wood block.

Water flat thoroughly and allow excess water to drain away before planting. Seeds may be sown broadcast and lightly covered with sand, peat moss or the same soil in which planting was made. **COVER LIGHTLY**; not over $\frac{1}{16}$ inch. If you can still see some of the seeds after the flat is watered just following planting it is just right.

It will require from 7 to 12 days, depending on the time of season, for germination to take place. During this time it is absolutely essential that the flat be kept moist **AT ALL TIMES**. It should be examined two or three times a day and sprinkled lightly with a sprinkling can when ever the slightest indication of dryness appears. A great help in holding the moisture is a piece of doubled burlap (2 thicknesses) that just fit the flat. These may be dipped in water and layed over the surface of the flat to start and sprinkling done right over it afterwards. This also has a tendency, through evaporation, to cool the surface which is helpful in obtaining good germination in hot weather. Care **MUST** be taken to remove this burlap before the seed sprouts get a hold on it for if this happens you will lift the seeds out of the ground when the burlap is removed. The flats must be shaded for several days after germination gradually increasing the light until the plant will stand normal sunlight in your growing conditions. For the seeds in each of our packets use a full flat.

After the seed leaves have unfolded reduce the moisture and water just enough to keep the plants growing well. Excessive moisture at this stage of development will cause damping off and you can easily lose all the plants. Damping off is first noticed when the small plants start laying over on their side and the stem rots off just above the ground. Should damp appear, dust the affected spots freely with flowers of sulphur and use still more care not to over water. Always set the flats level and on a solid surface — never up on something that will permit heavy circulation of air under the flat. This will promote cool soil temperatures and prevent excessive loss of moisture.

Watch out for mice, crickets, sowbugs and slugs at this stage of development. Mice are especially fond of Pansy seeds and will dig and eat the seeds. Crickets will eat or carry the seeds off. The sowbugs will eat the plant just as the sprout appears as will the slug. There may be other regional pests but these are the ones that are the most usual source of trouble.

The seedlings should be allowed to grow in this seedling flat until they have at least 6 leaves but must be transplanted before the plants become so crowded as to draw them.

To obtain the full range of colors and large size flowers of which our strains are capable the culture must be such that a goodly portion of the seeds are brought to flower. Invariably when poor germination is obtained the loss is the heaviest in the fancy colors and the largest flowering types. Loss from improper wintering will result in the same condition so that heavy losses from any cause usually means a poor showing in the finest strains.

TRANSPLANTING

Pansies do best if not transplanted more than twice and where winters are not too severe a single transplanting — from seedling flat to blooming bed does just as well. The flower size and vitality of the plant depends upon the food you are able to supply in this

final bed where the plant blooms. For that reason the very liberal use of cow manure or compost is to be recommended. A good application of steamed green bonemeal can be used to advantage with almost any soil. The main thing is to have an abundance of usable food in a soil that does not bake hard and holds moisture well without waterlogging.

Cow manure or compost $2\frac{1}{2}$ to 3 inches deep sprinkled with steamed green bonemeal at the rate of 6 pounds to the 100 square feet spaded into the top 8 or 10 inches of soil should be just right. Allow at least 14 x 14 inch spacing for all giant types in mass bedding or 12 inches where solid borders are being set. Cut flower types may be set 10 x 10 inches as this will promote longer stem growth and the plants will support each other.

In transplanting use special care not to set the plant too shallow or too deep. Set just so the stool of the root is at ground level or very slightly below. Shallow planting will make illformed plants while deep setting will cause dwarfing or loss. Spread the roots well and firm the soil moderately with your hands around each plant. Sprinkle at once after planting and give enough water often enough to prevent excessive wilting for the first ten days after transplanting. By this time the danger of damping off is usually past. Keep beds weeded and well cultivated during the active growing season until winter slows or stops growth. Don't winter cultivate.

A word about specimen beds. If setting formal beds to a color scheme always plant at least 15% in extra plants in another bed in the garden so you will have reserve plants to reset any which may be off color. All separate color stocks in Pansies will show rogues and the number of these will vary both with the variety and season. Parks and large estates where color designs are carried out usually follow this practice of what is called transplanting into selection beds and transplanting a second time into the final beds after the first blooms have appeared. In this way it is possible to have a formal bed very closely matched as to color. This is also a very useful way to set a specimen bed of mixed colors and is to be highly recommended where show results are desired. The second transplanting is usually done in early spring when first blooms appear and care should be used to transfer the plants with a large ball of earth. If you use the selection bed method transplant 6 x 6 or 8 x 8 inches in the selection bed but use full spacing mentioned above in the blooming bed.

FEEDING PANSIES

After the plants have been in full bloom a month they will begin to deplete the food available to their roots and if continued show results are to be obtained it will be necessary to supply supplemental food. This may be done in two ways.

Possibly the least trouble and the method giving very good results is to apply a complete fertilizer like Vigoro at the rate of 2 to 3 pounds per 100 square feet of bed, at intervals of a month or six weeks after feeding is first started. Apply this over the surface and mix in well by cultivation using care not to get it closer than two or three inches from the plant stool. Don't cultivate too deeply. These compounds are mostly water soluble and watering will soon distribute them evenly. Use care not to over feed or to get the compounds on the foliage heavily. Water bed thoroughly after application and cultivate as soon as dry enough.

The professional grower who is feeding for show purposes usually prefers monthly applications of dried blood and bone. This may be applied at the rate of 4 pounds per 100 square feet and worked in. It may be applied up close to the plant and is not dangerous to the foliage. In cultivating Pansies always use care not to dig so deeply as to disturb their rather shallow roots.

Moisture must be supplied regularly and in adequate quantity for large flowers over the longest possible period. The bed will require watering some every day usually as soon as good growing weather comes in the spring and frosts stop at night. Don't over water, however. A good test for proper moisture is to take a small ball of dirt from the bed an inch under the surface and squeeze it into a ball in your hand; if the dirt just barely crumbles when pressure is released the moisture content is ideal. Watering will usually be required, however, within a few hours.

Pick flowers from your Pansy bed freely but don't keep it denuded. They are planted for display so flowers should develop fully on the plants at all times. Keep the withering flowers picked off and do not allow seeds to develop if you want your beds to stay in good condition. As soon as seeds are permitted to start forming the vitality of the plant will go into the development of the seeds with resulting

loss of beauty. The seeds you can grow on small garden beds are of little value. The strain soon runs out and colors will revert to 4 or 5 basic ones of little beauty. The breeding specialist usually requires at least ten plants from which to select one seed producer and it takes a lot of experience and know how on his part to know which is the one plant in the ten to use for seed production.

You can keep your plants in better form if you make a practice of pruning them a little all the time as you pick the flowers. Instead of taking the flower stem by itself pick a bit of foliage with it where the plant seems to be getting out of shape. This will give you more latitude in the flower arrangement of your bouquets and is good for the plant.

WINTERING PANSIES

Pansies are much hardier than most gardeners realize. They may easily be carried in sub-zero temperatures with light protection. In climates where the minimum temperature is not usually below 25 degrees they will require little or no protection at all. Where the temperature drops below 25 degrees and down to 5 above zero or where it gets much colder but snow accompanies the extreme cold spread a few evergreen boughs or even light brush over the bed for protection. Evergreen boughs are ideal for they usually cup upward and when turned upside down they stand up nicely off the plants.

Where temperatures are apt to fall below 5 degrees above zero with little or no snow it will be best to winter plants in cold frames or mulch with a light straw mulch. If the latter course is used cover just heavily enough to allow a few of the leaves to remain visible. The main object in protection of any kind is not to prevent freezing but to equalize the ground temperature and keep it frozen once it freezes. In other words to make the cycle of freezing and thawing slow. It is the quick changing of temperature that causes heaving and this breaks the taproot and can kill the plant. Covering too heavily also will prove fatal for the plants smother rather easily and so any protection must afford a little circulation of air. They do not usually smother under snow.

MANY THANKS

We appreciate your patronage and take this opportunity to thank you for it. It has been our effort in this little booklet to supply expert information that will enable you to produce the best plants from our Pansy seeds. The seeds that have been supplied to you are the best that can be grown. Every effort has been made to get them to you in good condition. It must be remembered, however, that while for outstanding results you must have a foundation seed that is capable of the desired results, the final success rests with you. You may produce outstanding plants and flowers from these seeds while possibly your neighbor will experience total failure from the very same seeds. That's one of the permanent attractions and sometimes the disappointments of gardening. We all experience these situations at times. Rest assured that we have used every bit of our 43 years experience and the best of equipment, soil and climate to take the variables out of these seeds as nearly as is humanly possible.

If you are a customer of long standing you will continue to receive our catalogs as published. If this is your first experience with our stock your subscription to our catalog will begin with the next edition. A current copy is being mailed if any are available but in these times of paper shortages we have to limit our editions and frequently run short before a new edition is ready.

HARROLD'S PEDIGREED

Pansy and Viola Seeds

PANSY SEEDS

Following is a brief description of the Pansy varieties that have been originated and introduced by us during the past twenty years. Each variety is outstanding in its particular type and we do not believe that any superior variety is to be obtained in the market today. In breeding and developing this group of varieties it has always been our goal to see that they are NOT excelled.

NOVELTIES

HARROLD'S PEDIGREED NOVELTIES: These are a blend of seeds grown from new types in our breeding department. Recommended where the most varied and unusual is desired. PRICE per packet, about 400 seeds, \$4.00.

HARROLD'S SUNSET GIANTS: Our fine 1944 novelty. Sunset shades of orange, red and gold. Giant size in blotched and ray markings. PRICE per packet, about 500 seeds, \$3.00.

HARROLD'S PEDIGREED POT PANSIES: A short, compact growing type adapted to pot and porchbox growing. Flowers are large and color range very brilliant. PRICE per packet, about 500 seeds, \$2.00.

HARROLD'S PEDIGREED CUT-FLOWER PANSIES: We have two distinct types of these and depending on requirements either selection has a definite field.

ORIGINAL STRAIN: This was our first type offered 15 years ago. Growth is rather low but under glass the flowers are large and on stems 8 to 10 inches long. Color range is more varied and they are as hardy as any Pansy. PRICE per packet, about 500 seeds, \$2.00.

TALL SELECTION: These grow taller; up to 4½ feet and stems are usually 10 to 16 inches long and quite stiff. Color range is we believe the best of any of the tall strains and flower size is good under proper culture. The plants of this variety will freeze quite easily. PRICE per packet, about 200 seeds, \$3.00.

FORMAL COLORS

HARROLD'S AZURE GIANTS: The finest intensely blue Pansy.

HARROLD'S GOLDEN GIANTS: Deep golden yellow, velvet blotch.

HARROLD'S RUBY GIANTS: Shades of red in the finest range.

PRICES per packet on the three varieties of this group, about 500 seeds, \$1.00; $\frac{1}{16}$ oz. \$2.00.

OUTSTANDING MIXTURES

HARROLD'S PEDIGREED SWISS GIANTS: Our latest and finest "Fancy" type Pansy. The ultimate in flower size and color range, on compact sturdy plants. Nearly all flowers have the large center blotch so characteristic of the fancy type of Pansy. Heavy substance and velvety texture.

HARROLD'S PEDIGREED GIANT ART-SHADES: A much improved strain of our variety Harrold's Pedigreed Giants. Better color range, flower size and plant habit. The finest "Exhibition" type with lively colors, small center blotch and usually two zones of contrasting color. Also many self colors and penciled markings. Our largest flowering sort having produced flowers over 5 inches across. PRICE per packet for either of the two varieties listed just above, about 500 seeds, \$2.00; $\frac{1}{16}$ oz. \$4.00; $\frac{1}{8}$ oz. \$7.50; $\frac{1}{4}$ oz. \$12.00.

HARROLD'S PEDIGREED GIANTS: This outstanding "Exhibition" type was introduced by us in 1929 and has maintained its popularity through the years. Flowers are very large on compact, robust plants that produce a most varied range of bright colors. The flower markings are typically "Exhibition" type. Many flowers are over 4 inches across with good culture. PRICE per packet, about 500 seeds, \$1.50; $\frac{1}{16}$ oz. \$3.00; $\frac{1}{8}$ oz. \$5.50; $\frac{1}{4}$ oz. \$10.00.

PANSY SEEDS Continued

HARROLD'S ALL-AMERICAN BEDDING MIXTURE: This is a blended mixture of which 80% is from ALL the Harrold variety originations and the balance of 20% is from the many other varieties which we grow or receive from other sources. This is a very useful, general purpose mixture and it is an outstanding value in the medium price range. Giant flowers and a very wide color range. PRICE per packet, about 500 seeds, \$1.00; $\frac{1}{16}$ oz. \$1.75; $\frac{1}{8}$ oz. \$3.00; $\frac{1}{4}$ oz. \$5.00.

HARROLD'S IMPROVED SWISS: Where a "Fancy" type is needed at a price this one is to be highly recommended. Not as good as our Harrold's Pedigreed Swiss Giants of course, but it is not excelled by strains of this price usually offered as "Swiss." It is unusually suited in color, size and habit to the demands of the American gardener. PRICE the same as Harrold's All-American.

STANDARD SEPARATE COLORS

Not Originated By Harrold's

CORONATION GOLD: The finest pure yellow self. No markings.

SWISS BERNA: A very large violet blue.

SWISS LUNA: Sulphur yellow self.

SWISS PURE WHITE: The best pure white and very popular.

PRICES ON THESE FOUR — The same as Harrold's All-American.

VIOLA SEEDS

Violas are a very satisfactory companion to Pansies and in many instances they are more desirable. The following list is the best available today. Handle the same as Pansies.

PRICE PER PACKET \$1.00; $\frac{1}{16}$ oz. \$1.75

ADMIRATION: Large dark blue.

APRICOT: Apricot yellow tinged orange.

ARKWRIGHT RUBY: Deep ruby red. Very fine for borders.

BAZARRE: The two upper petals are pure violet while the three lower petals are apricot. Most attractive.

BLUE PERFECTION: Very large purple blue.

CHANTREYLAND: The finest pure apricot.

CHINESE BLUE: NEW. A fine soft blue. Nothing like it.

ILONA: Wine red or deep rose. Attractive.

KING HENRY: NEW. Rich violet blue with attractive small yellow eye. A fresh perky sort.

LUTEA SPLENDENS: Golden yellow of brilliant shading.

PAPILIO DEEP VIOLET: A real violet shade.

PAPILIO LIGHT BLUE: Has almost a white center.

IMPROVED SCOTCH BEDDING MIXTURE: The newest bedding hybrids in many colors. Flowers unusually large for Violas.

WHITE PERFECTION: Large flowered pure white.

ALL SEEDS ARE SHIPPED POSTPAID.



HORTICULTURAL SPECIALISTS SINCE 1902

GROWING — BREEDING — SUPPLYING
SEEDS, BULBS AND PLANTS

To The Critical Professional Florist and Nursery Trade

For over 25 years **HARROLD'S** has been supplying the critical professional trade on a national and to some extent a worldwide scale. Our interests are principally with the professional tradesmen and wherever quality is of paramount importance you will hear our stock referred to with much favor. It has been our constant effort to grow or assemble stock of the very best quality — all produced by specialists outstanding in their line when not grown in our own seed ranches and nursery. A strict policy of quality first is always adhered to but our prices are always economical when evaluated by a quality standard.

SEED SPECIALTIES

Pansies, Violas, Primula, Delphinium, Larkspur, Begonia, Cineraria, Snapdragon, Stocks and a general list of Perennial varieties.

BULB SPECIALTIES

Gladiolus, Tulips, Lilies, Tuberous Begonias & Dutch Iris. Suitable strains for forcing.

BUSINESS REFERENCE

The First National Bank of Portland, Grants Pass Branch
or The Grants Pass Chamber of Commerce.

PROPRIETORS

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